

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

CLEANUP AND ABATEMENT ORDER No. 95-229

**SOLANO GARBAGE COMPANY
CLASS III DISPOSAL SITE
FAIRFIELD, SOLANO COUNTY**

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

DISCHARGER & SITE IDENTIFICATION

1. The Solano Garbage Company Landfill is owned by the Solano Garbage Company, (hereinafter referred to as the discharger). The closed Class III landfill is located on approximately 65 acres south of Fairfield in Solano County. The project site as shown in figure 1, which is incorporated herein and made part of this Order, is located adjacent to State Highway 12 at Scally Road approximately 4 miles southeast of Fairfield.

SITE DESCRIPTION

2. The landfill is located in a low lying area adjacent to Union Creek and Hill Slough on the lower reaches of an alluvial plain extending northward from the Potrero Hills and the northeast edge of Suisun Marsh. The landfill served the disposal needs of Fairfield, Suisun City, Green Valley and the surrounding unincorporated areas of Solano County. The landfill was replaced in 1987 with the Potrero Hills Landfill in serving the needs of the areas cited above.

SITE HISTORY

3. Disposal operations began in 1956. The waste stream consisted of residential and commercial wastes, sewage sludge cakes, and construction and demolition debris. The site stopped receiving municipal solid waste in 1985, but continued to receive construction and demolition debris until 1987. The site was closed on October 1, 1988. The landfill contains an estimated 1.8 million cubic yards of refuse.

No leachate collection and removal systems exists, but a leachate monitoring system consisting of five wells as shown in figure 2 was installed at the site between 1986 and 1987.

The site closure plan included installation of a final cover to minimize infiltration of water into the refuse. The cover was designed to consist of a 2-foot minimum compacted soil base, a 1-foot minimum low permeability compacted soil core, and a 1-foot minimum vegetative soil layer.

The initial groundwater monitoring network consisting of wells G-1, G-2 and G-3 was installed in 1975. Wells G-4 and G-5 were added to the network in 1977, and the network reached its current configuration in 1986 with the installation of wells G-6, G-7, BG-1 and BG-2.

4. The Board on September 20, 1977, adopted Waste Discharge Requirements (WDRs) Order No. 77-117. On August 20, 1986, Order No. 77-117 was revised by the adoption of Order No. 86-65

**SOLANO GARBAGE LANDFILL
CLEANUP AND ABATEMENT ORDER No. 95 - 229**

prescribing Waste Discharge Requirements for the closure and postclosure maintenance at the Solano Garbage Company Landfill. This Order incorporates Order No. 86-65 in accordance with the California Code of Regulations, Title 23, Chapter 15.

5. **RELEASE FROM LANDFILL** - Volatile organic compounds (VOC's) have been released from the Solano Garbage Company Landfill into waters of the state, as based on review of the 1993 Solid Waste Assessment Test (SWAT) Report and subsequent Self - Monitoring Program reports.
6. The following VOC's were initially detected in 1987 along the west and northwest corner of the landfill adjacent to Union Creek, Hill Slough and Suisun Marsh: vinyl chloride (1800 ug/L), benzene (3.4 ug/L), chlorobenzene (71 ug/L), trichlorobenzene (47 ug/L) and 1,1 dichloroethene (120 ug/L). Historical data indicates declining concentration levels of vinyl chloride (160 ug/L), benzene (3.1 ug/L), trichloroethene (18 ug/L) and cis - 1,2 dichloroethene (130 ug/L).
7. In a letter dated December 3, 1993, the Regional Board requested Solano Garbage Company Landfill to establish a corrective action program pursuant to Chapter 15, Article 5, Section 2550. The discharger proposed installation of slurry wall to prevent migration of the release off-site. However, the proposed corrective action program has not been implemented as scheduled, because the area of impact and the migration pathways were not delineated until the summer of 1995.
8. Recent report of exploratory drilling dated July 7, 1995, submitted by the discharger, indicates potential migration pathway of VOC's through sandy clay, sandy silt and silty sand at 10 to 20 feet below ground surface. The impacted area extends approximately 50 feet west of the landfill in one limited area (near well G-1), and approximately 50 feet north of the landfill in another limited area (near well G-2). There is no identification of migration of VOC's beyond the immediate perimeter of the landfill elsewhere.

PURPOSE OF ORDER

9. This order is intended to:
 - require development of a revised corrective action plan to assure compliance with the facility's Waste Discharge Requirements (WDRs),
 - improve groundwater monitoring program,
 - establish trigger levels for implementation of remedial actions for on-site groundwater pollution,
10. This Order is an action for the protection of the environment and is categorically exempt from the California Environmental Quality Act, pursuant to Section 15308, Title 14 of the California Code of Regulations.
11. The Board notified the discharger and interested agencies and persons of its intent to issue a Site Cleanup Order for the discharger and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
12. The Board, in public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Solano Garbage Company Landfill, their agents, successors and assigns shall cleanup the waste discharged, abate the effect of further discharge, and take other remedial actions pursuant to Section 13304, of Division 7 of the California Water Code, and shall comply with the following:

A. Prohibition

Discharge of waste or hazardous materials that will significantly degrade water quality, adversely affect beneficial uses of the waters, or in a way that is contrary to the specifications of this Order is prohibited.

B. Remedial Measures

1. The Discharger shall obtain all permits and install groundwater monitoring wells along the west and northwest corner of the site as shown in figure 2. The wells shall be located between 25 to 100 feet beyond the perimeter of the landfill, at a maximum spacing of 150 feet, except between existing wells P-27 and G-3 where the maximum well spacing shall be 300 feet. The monitoring wells shall be screened at appropriate depths to yield groundwater samples from the uppermost aquifer that represents the quality of groundwater passing the points of compliance and at other locations in the uppermost aquifer to provide the data needed to evaluate changes in water quality due to a release from the landfill.
REPORT OF COMPLETION DUE DATE: May 15, 1996
2. The discharger shall analyze the samples from the monitoring wells referred to in Remedial Measures B.1 on a quarterly basis for parameters listed in Table A of this Order.
REPORT DUE DATE: 15th Day of the following months: April, July, October & January.
3. The discharger shall submit a technical report, acceptable to the Executive Officer, containing a remediation plan for the shallow groundwater. The plan may include alternatives of which one alternative will include, at a minimum, a slurry wall along the west and northwest perimeter of the landfill to prevent migration of the release.
REPORT DUE DATE: January 31, 1996
4. The discharger shall implement the approved remediation plan (item B.3.) if the trigger level shown in Table A is exceeded and submit a report, acceptable to the Executive Officer, documenting implementation of the approved plan. The retest period for verification of trigger level exceedence is not to exceed 45 days.
REPORT DUE DATE: Within 60 days of verification of trigger level(s) exceedence.
5. The discharger shall submit a report establishing cleanup goals for VOC's acceptable to the Executive Officer. The cleanup goals must not exceed the trigger levels shown in Table A.
REPORT DUE DATE: 90 Days After the Approval of Remediation Plan (item B.3.)
6. All reports pursuant to this order shall be prepared under the supervision of a registered civil engineer, California registered geologist or certified engineering geologist registered

SOLANO GARBAGE LANDFILL

CLEANUP AND ABATEMENT ORDER No. 95 - 229

pursuant to Section 6762 of the Business and Professions Code, who has at least five years experience in groundwater hydrology..

7. All samples shall be analyzed by State certified laboratories, using approved EPA methods.
8. If the discharger is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger shall promptly notify the Board in writing with proposed revised completion dates. The Board may or may not consider revision of this Order.
9. Copies of all correspondence, reports, and documents about compliance with this Order, shall also be provided to the State Department of Fish & Game, the U.S. Army Corps of Engineers.
10. The discharger shall immediately notify the Regional Board and the State Department of Fish and Game by telephone, whenever an adverse water quality condition occurs because of groundwater related activities. A written confirmation on the incident shall follow within five working days.

Pursuant to Section 13304 of the Water Code, the discharger is hereby notified that the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of wastes and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action required by this Order. Upon receipt of a billing statement for such costs, the discharger shall reimburse the Regional Board.

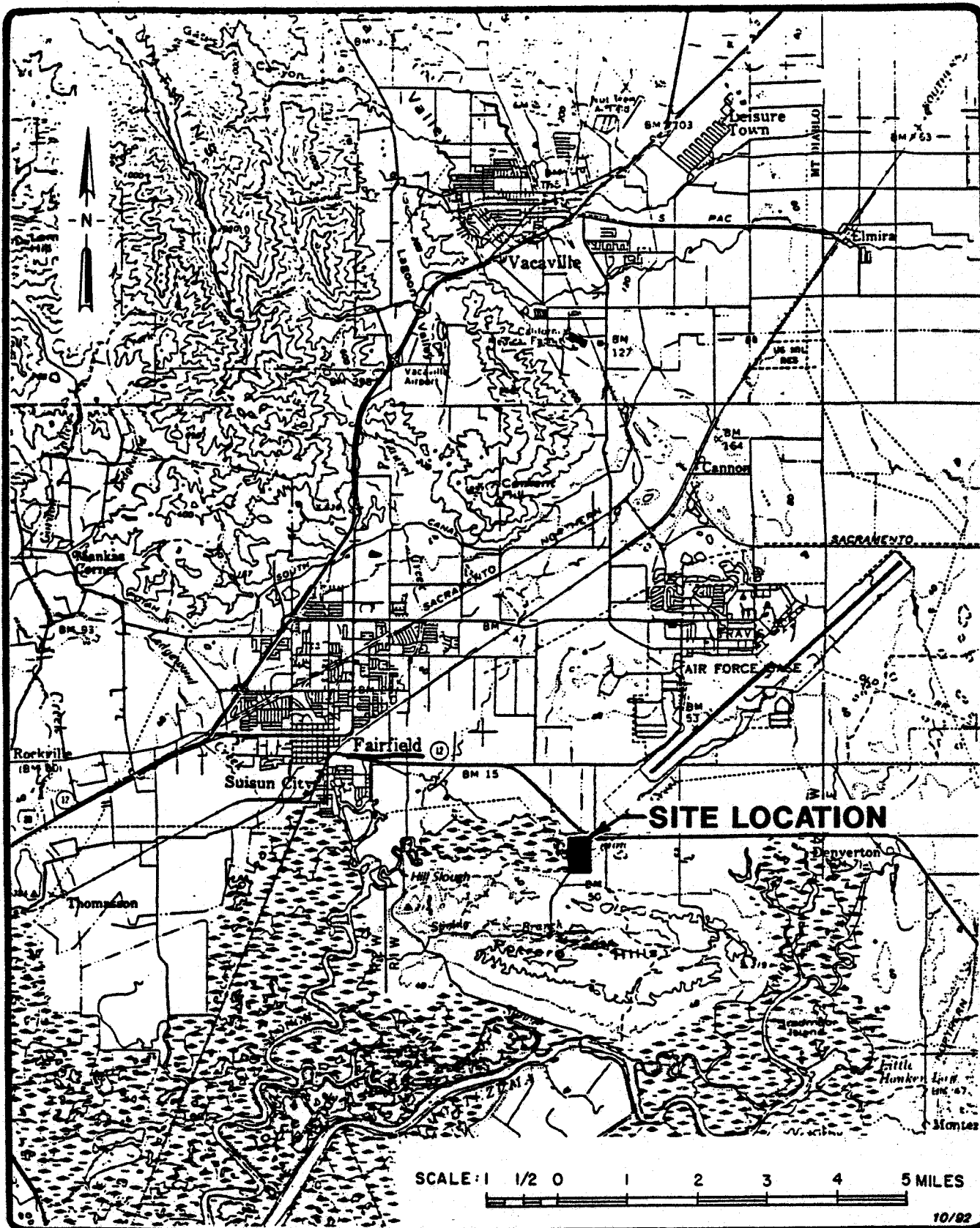
Pursuant to California Water Code Sections 13304 and 13350, if a discharger fails to comply with the provisions of this Order, the Board may schedule a hearing to consider assessing civil monetary penalties and to consider requesting the Attorney General to take appropriate enforcement action against the dischargers, including injunctive and civil monetary remedies.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on November 15, 1995.


Loretta K. Barsamian
Executive Officer

11.15.95
Date

Attachments:	Figure 1.	Site Location Map
	Figure 2.	Location of Monitoring wells
	Table A.	List of Parameters



EMCON
Associates

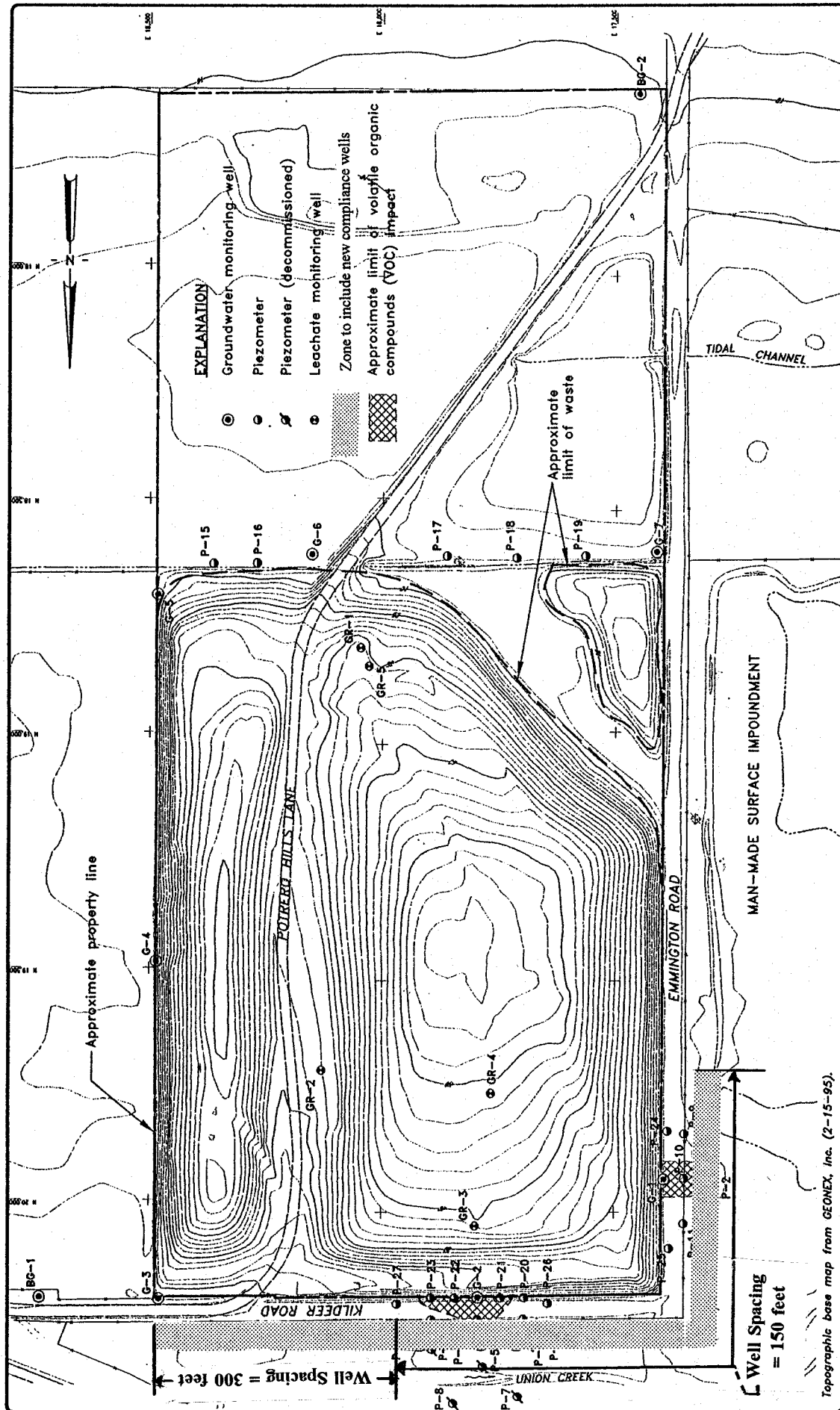
**SOLANO GARBAGE COMPANY
SOLANO GARBAGE DISPOSAL SITE
FINAL SOLID WASTE ASSESSMENT TEST
SOLANO COUNTY, CALIFORNIA**

SITE LOCATION

FIGURE

1

**PROJECT NO.
170-01.03**



 emcon	SCALE: 0 200 400 FEET	SOLANO GARBAGE COMPANY SOLANO GARBAGE DISPOSAL SITE SOLANO COUNTY, CALIFORNIA	FIGURE NO. 2
		ZONE OF VOLATILE ORGANIC COMPOUNDS (VOCs) IN GROUNDWATER	PROJECT NO. 170-001.08

Table A - Discharge Monitoring Plan, List of Analytical Parameters and Remedial Action Trigger Levels

Parameters	Method	Trigger Levels	Reference
Water level	Field	N/A	1
Temperature	Field	N/A	1
Alkalinity, bicarbonate	310.1	N/A	2
Alkalinity, hydroxide	310.1	N/A	2
Total organic carbon	415.1	N/A	2
Total phenols	9065	N/A	3
Total dissolved solids	160.1	N/A	2
Electrical conductivity	9050	N/A	3
Turbidity	Field	N/A	1
Volatile organic compounds	8010/8020	one compound > PQL. If two compounds, 1 ug/l per compound	3
Semivolatile organic compounds	8270	one compound > PQL. If two compounds, 1 ug/l per compound	3
pH	9040	below or above 6.5 - 8.5 units	3

1. Not Applicable
 2. Methods for Chemical Analysis of Water and Wastes, EPA600/4/79/029, revised March 1983.
 3. EPA SW-846
- Sample Type:
(a) groundwater samples only